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Analysis Regression of Lecture Perception in Learning Based KKNI Curricula in Indonesia

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Abstract
Learning tools are an important part of a lecture. Consistency in both formatting and quality design becomes an important role. In this study aimed at the development of Scientifics-based device design approach. Improved Academic Success Skill becomes the ultimate goal of application of the resulting device design. The research method used is based on product development. In the research conducted information gathering through questionnaires and needs analysis in various faculties. There are 3 stages in the research through the product observation stage, survey needs analysis, and responsive questionnaire. Data analysis was done by linear regression test. Based on the analysis of the relationship between perception and responsive shows the need for the format and design of standard and specific learning tools on the achievement of Academic Success Skills.
Keywords: Scientifics Methods, Academic Success Skill, Perception, Responsive

1. Introduction

The development of learning tools that leads education towards developing more creative and innovative learner skills. The development is tailored to the KKNI that is applied in curriculum development to produce more effective and directed learning outcomes. It aims to be able to focus the achievement of learning on the things that become the achievement of learning directly. Achieved learning achievements have been adjusted to the KKNI standards for University-level Learning. The achievement of learning leads to aspects of knowledge, skills, and attitudes. Alidousti, Sirous; Khosrowjerdi, Mahmood; Abdolmadjid, Amir Hossein (2012) that Scientific Periodicals fulfill a significant role in the communication, exchange, and sharing of scientific findings.

Based on a preliminary study at the University of North Sumatra, Indonesia shows that the availability of teaching tools used by lecturers is still limited to the knowledge aspects (Sinuraya, Simatupang, & Wahyuni, (2014), Sinulingga & Josevina, (2012), Sinulingga & Munte, (2012), Batubara, F., & Sinulingga, K., (2014)). Some of these studies indicate that learning in the experimental class obtained an average learning outcome that is still low around 68.95 to 72.50. This is the reason for the need for improved learning tools that are more appropriate to lead to the optimum aspect of knowledge in achieving Academic Success Skills. Carey, John; Brigman, Greg; Webb, Villares, & Harrington (2014) that This article describes the development of the Student Engagement in School Success Skills instrument including item development and exploratory factor analysis.

Academic Success Skills not only focus on aspects of knowledge, skills, and attitudes but three aspects that are directed to the ability of IQ (Intellectual Question), EQ (Emotional Question), and SQ (Spiritual Question). According to the (Professional Development, 2011) Academic Success Skills have indicators: Collaboration, Effort, Motivation, Perseverance (Resistance), Meta-cognitive, and Intellectual Risk Taking. In addition, according to King, (2002) the use of technology in science education can be seen as a means to achieve the goal of science literacy. Roberts & Norman, (2009) stated that good practice and analysis are the most likely techniques for making progress in learning. This is asserted by Barlex & Welch, (2009) that technological education is a basic part of the curriculum, designing and creating are the main features of the technology curriculum. The development of a curriculum that has informed technology education in practice is better than consideration of research findings. Many construction services have voiced their dissatisfaction with today's low-quality vocational high school graduates. The low quality of graduates is closely related to the quality of the teaching and learning process, particularly the teaching materials. When the Educator truly understands how to build a technology education experience that empowers students to make design decisions then the Educator is in a position to assist technology education in fulfilling its potential.

In the application of the inquiry learning model from several studies (Harahap & Sinuraya, (2013), Sinuraya & Siburian, (2013), Harahap & Sinuraya, (2014)) showed better results than conventional learning processes in improving scientific skills. This is based on the research of Sinuraya, Motlan, & Ratelit, (2012) which gives a description that the syntax of innovation strategy of General Physics I learning strategy based on inquiry method and Blended Learning shows the result of experiment of learning strategy innovation along with its supporting

tools reaching good category. According to Ramadhani & Motlan, (2015) the results of research on high-level cognitive using project-based learning model with think talk write strategy shows the results of cognitive learning of high-level physics students with a level of scientific creativity has a positive role in learning. Nicolson, M & Uematsu, K (2013) that Within Higher Education, current changes in levels of funding available and the increasingly diverse profiles of students participating have placed a greater emphasis on the need for institutions.

Giordan, et al., (2004) Students who are capable of (achievement satisfactory) in each of the outcomes / goals listed in this guide are determined by student achievement of 70% district passing-standards related to all curricula and population. Such proficiency should be measured by the number of evaluation techniques, instruments, and activities. According to Popov & Vilaythong, (2010) the idea of a curriculum is based on three ideas: knowledge map (content), travel across the knowledge map (didactic), and objectives (outcome). According to Bowdoin College, (1999) formal theoretical knowledge, computational concepts and skills are the most important factors for students in gaining sufficiently active understanding that they are able to think and solve problems involving basic concepts in various contexts. This is confirmed by Fuller, (2003) who states the development of an important curriculum in physics and other sciences finds strength in contributions to science education. Kahn, Peter; Wareham, Terry; Young, Richard (2008) that The application of educational research to practice remains an issue of concern,

Adjustment of learning tools to Academic Success Skills indicators is expected to improve the quality of graduates to be more competitive in the global competition. IFsher, N. I.; Lee, A. J.; Cribb, J. H.J. (2013) that This article reports on a three-year study to evaluate a new approach to the impact and adoption of new scientific findings and technologies. This adjustment is based on Academic Success Skills indicators that meet all three aspects of learning, especially at higher levels, so that students have the physical, mental, and competency preparedness that is expected in achieving success in the world of work globally. Corby, Brian; Millar, Malcolm; Pope, Anne (2002) that This article examines the implementation of the point of view of the parents in one local authority. Parents' experiences of both initial and core assessments are considered to be the same as they are.) Their views about how well social workers carried out their functions. About a third of the parents are feeling negatively about the recollection of the views and explorations. However, the majority of parents expressed satisfaction with the process, and the research concludes with consideration of what leads to successful assessments and in what circumstances. Development of Design Model Learning tool in accordance with KKNI is a development directed at the achievement of learning in accordance with the graduation criteria to be achieved that is Academic Success Skills. The achievement is contained in the learning achievements formulated in the learning tool of a college. The expected graduate criteria today are an individual who not only has academic skills but also skills that can direct the individual into a successful person. Abilities and skills are developed with a learning process that uses Scientifics learning models as a learning base. Scientific Learning can train students to think highly and creatively in producing the products in the learning process so that they become individuals who have Academic Success Skills.

2. Method

The type of research used in developing the University Learning Model Tool Model is Research and Development (R and D). Stages R and D include: (1) collecting data and information, (2) planning, (3) designing products, (4) limited trials, (5) major product revisions, scale, (7) revision of operational product, (8) field trial, (9) revision of final product, and (10) dissemination. Field studies related to information about the implementation of learning devices through the perception of lecturers and students. In this case, conducted by using the observation instrument to be analyzed correlation between the perception of the lecturer and the student against the need of draft format of the preparation of the University-level learning tools. The data obtained in this study is descriptive data distribution for each item item of instrument to be analyzed through regression linearity.

3. Result & Discussion

The result of analysis of research data shows that Instrument Survey, In preparing the instrument, the executing team held a discussion in phases so as to obtain the instrument formula to observe in the form of self-assessment questionnaire with 2 different systems (First as the control of concept comprehension and secondly as the controller of the application of learning device design). The instrument is given to several lecturers in various study programs. This resulted in a draft of a prototype to be used in a small sample test within the university's scope.

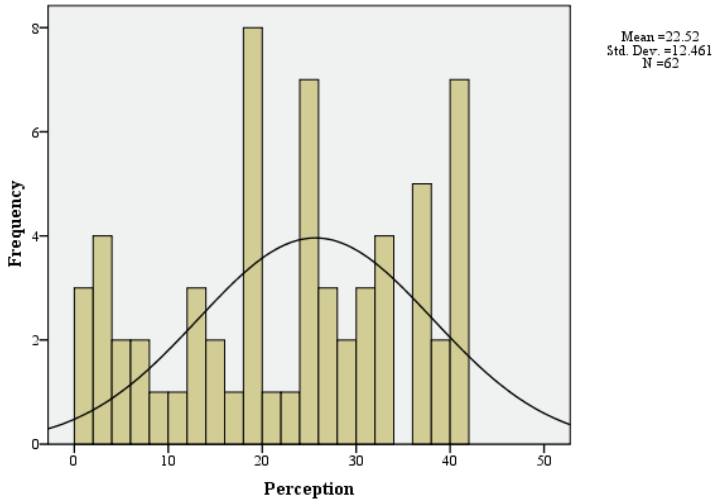

Figure 1. Perception Distribution in Preparation of Learning Tool

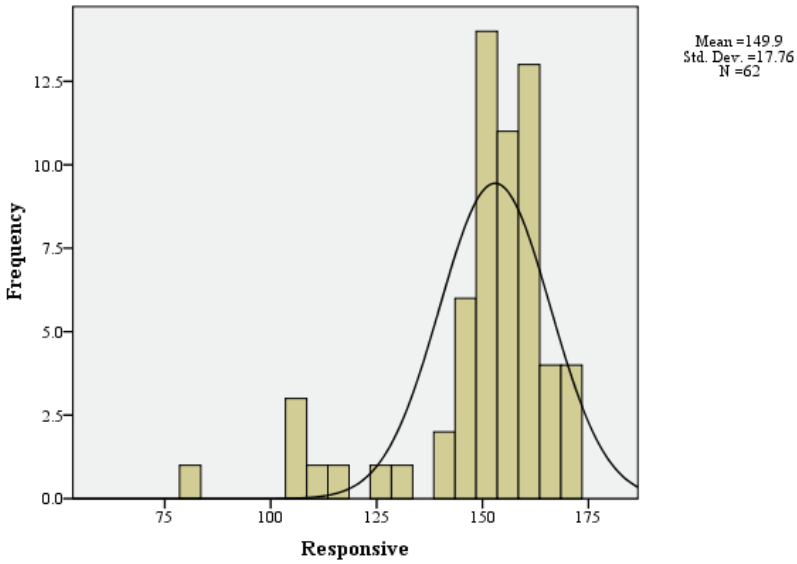

Figure 2. Responsive Distribution in Preparation of Learning Tools

Description and Analysis of Findings (Factual Model), From the collected results collected in the distribution of data in the attachment data attachment for each item indicator. In addition, there is also a check on the learning tool as an adjustment of responses in response to the preparation of learning implementation. From the results of data collection obtained information that the results of respondents in providing information from the questionnaire almost 70% not in accordance with learning tools obtained. In addition, from the examination of the device there appears to be no preparation of instructional tools directed at the Academic Success Skill and the absence of one format for a single university (Chun, 1999).

The results of linear regression analysis in this study can be seen in Table 1.

Table 1. Results of Linear Regression Test

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	150.176	4.726		31.777	.000
	Perception (X)	-.012	.184	-.009	-.066	.948

a. Dependent Variable: Responsive (Y)

Based on the data in Table 1 above, we can compile multiple linear regression equations as follows:

$$Y = 150.176 - 0.012\ X + \varepsilon$$

Hypothesis Test Results

The result of t-test analysis using SPSS program assistance is summarized in Table 2. Based on Table 2, we get regression coefficient value of -0.012 and t-count equal to -0.066 with probability significance level equal to 0.948 or greater than expected level of significance (0.948 > 0.05). Thus, it can be concluded that the perception information has no significant negative effect on the Responsive use of Draft Learning Tools (Bell, Wooff, McLain, & Morrison-Love, 2017; Ekhlas & Shangarffam, 2013; Hallam, Rogers, & Rhamie, 2010; Kahn, Wareham, Young, Willis, & Pilkington, 2008; Marsh, 1989; Walton & Morgan, 1978).

Table 2. Statistical Results t Test

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	150.176	4.726		31.777	.000
	Perception	-.012	.184	-.009	-.066	.948

a. Dependent Variable: Responsive

Simultaneous Significance Test (F-Test)

The results of the F-test analysis are summarized in Table 3. Based on the analysis and test results in Table 3, shows that the F-count value of 0.004 with probability significance level greater than the expected level of significance (0.948 > 0.05). Thus, it can be concluded that Perception has a negative effect on Responsive in the preparation of learning tools. The response of the lecturer in responding to the Questionnaire based on the instrument data collected by the observer shows a positive response which states the availability of the points submitted. Evidence of instructional tools collected as controls shows incompatibility with Lecturer's response to Questionnaire (Carey, Brigman, Webb, Villares, & Harrington, 2014; Crişan, Pavelea, & Ghimbuluţ, 2015; Hannaway & Carnoy, 1993; Hargreaves, 1989; Miles & Ekholm, 1985; Nagarajan, Ganesh, Punniyamoorthy, & Resmi, 2012; Solimon, Watton, & Morgan, 1978; West, 2017).

Table 3. ANOVA Test

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.394	1	1.394	.004	.948[a]
	Residual	19238.025	60	320.634		
	Total	19239.419	61			

a. Predictors: (Constant), Perception

b. Dependent Variable: Responsive

Coefficient of Determination Test (Adjusted R^2)

Based on the data in Table 4, it can be seen that the value of Adjusted R Square is -0.017. This shows that the independent variable (Perception) does not affect the Responsive variable (Y).

Table 4. Coefficient Determination Test Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.009[a]	.000	-.017	17.906

a. Predictors: (Constant), Perception

Based on the data in Table 4, it can be seen that the value of Adjusted R Square is -0.017. This shows that the independent variable (Perception) does not affect the Responsive variable (Y). Formulation of Scientific Model Based on the Implementation of Team to Formulate and Design the Key Indicators and Points in the Form The formulation and design is done through discussions of the implementing team and researchers. This makes prototype I, learning tools that can be used for further study of development on further research in a broader range (Marsh & Stafford, 1984; Sabar & Sabar, 1987; Solimon, Watton, & Morgan, 1978; Walton, Walton, & Morgan, 1978; White & White, 2004; Williams & White, 2004).

Preparation of draft learning tools and instruments based on Scientific model, Draft tools and instruments designed jointly by the implementing team by adjusting to form the majority of formats. This is done with simplify and align so that the main purpose underlying the formation of uniformity of learning devices can be fulfilled. In addition, improvements made to each supporting factor in the device are the main point in improving the quality of the function of learning tools produced. In the resulting device still has not directed the Academic Success Skill as the achievement of the course in improving the ability of the Student (Boyd, 2001; Feldman & Sanger, 2007; Herriott & Gross, 1979; Lo, 1995; Marsh, 1992; Marsh & Morris, 1991; Nixon, 1981; Sabar & Sabar, 1987; Shcherba, 2003; Williams, 2000).

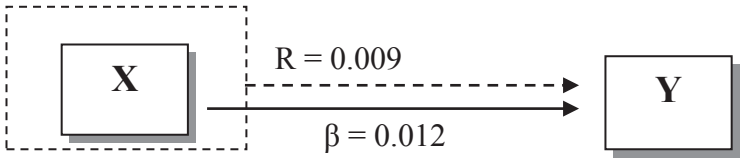

Figure 3. Influence Diagram of Perception vs Responsive

5. Conclusion

Based on the analysis of the relationship between perception and responsive shows the need for the format and design of standard and specific learning tools on the achievement of Academic Success Skills. In addition, Perception no direct influence in responsive formation of learning devices to be developed.

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